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Control

40. The floor covering according to claim 23, wherein the mechanically embossed portion includes all of the surface of the wear layer, except the chemically embossed portion. --

REMARKS

I. Status of the Claims

Claims 21-40 are currently pending. Applicants have amended claims 21, 24 and 30, and added new claims 39 and 40. Support for these amendments and claims can be found in the original specification and claims, as filed. For example, support for the amendment to claim 21 can be found at page 4, lines 2-20. In addition, support for the amendments to claims 24 and 30 can be found in original claims 11 and 17, for example. Accordingly, new matter has not been added.

II. Information Disclosure Statements

Applicants will soon file an Information Disclosure Statement (IDS) containing documents uncovered or made of record in assignee's, Mannington Mills of Delaware, Inc. ("Mannington"), related litigations. The Examiner is invited to contact the undersigned if she would like to discuss the contents of the IDS in a personal or telephonic interview.

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In the outstanding Office Action, the Examiner has requested that Applicants provide a copy of the PTO-1449 form citing the references for the IDS submitted on February 14, 2001. For the Examiner's convenience, Applicants will cite the two letters attached to that IDS on the PTO-1449 form when it is filed.

III. Rejections Under 35 U.S.C. §112

The Examiner rejected claims 24 and 28-32 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicants regard as their invention. According to the Examiner, the location of the design layer, top coat, and strengthening layers in claims 24, 28, and 30, respectively, is not clear. While Applicants respectfully disagree and traverse this rejection, in order to advance prosecution, Applicants have amended claims 24 and 30. Accordingly, the rejections of claims 24 and 30-32 have been rendered moot.

Applicants respectfully disagree with the Examiner's rejection of claims 28 and 29 for at least the following reasons. The use of the phrase "top coat" describes its location. One reading the specification would clearly understand that the location of a "top coat" layer would be on top of the floor covering product. Furthermore, while the Examiner does not have to read limitations from the specification into the claims, she clearly has to interpret the claims in view of the specification. If not already known to one skilled in the art, when claim 28 is interpreted in view of the specification, the location of the "top coat" would be readily apparent. See, e.g., page 16, first paragraph

("Once the wear layer is mechanically embossed, a top coat, also known as a wear layer, **is applied to the top and adhered to the embossed wear layer.**")(emphasis added) See *a/so*, page 17, lines 8-10 ("Finally, a top coat or wear layer top coat (not shown in FIG. 3) **is applied on top of and adhered to the embossed layer.**")(emphasis added).

For at least these reasons, the rejection of claims 24, and 28-32 is improper and should be withdrawn.

IV. Rejection Under 35 U.S.C. §102

The Examiner rejected claims 21-26, 28, and 30-38 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,273,819 to Schmidle et al. ("Schmidle").

Applicants respectfully traverse this rejection.

One skilled in the art would know that mechanical embossing of the wear layer of a vinyl sheet product may be accomplished in three different states of the wear layer: a softened state, a nonsoftened state, and a gelled state of the pre-wear layer.

Mechanical embossing in the softened state is typically performed with an embossing roll that is cooled internally. Mechanical embossing in the nonsoftened state is typically performed with a hot embossing roll. Thus, softening does not occur until the wear layer makes contact with the embossing roll.

Unlike these two techniques, Schmidle proposes performing mechanical embossing on a gelled or pre-cured wear layer. As taught in Schmidle, the wear layer is initially laid down as a dispersion of reactive polymerizable and/or cross-linkable monomeric materials and a free-radical polymerization catalyst. See, e.g., col. 2, lines 45-50 and col. 7, lines 41-56. Prior to polymerization of the monomers, the pre-cured wear layer is not a homogeneous matrix. Instead, it consists of individual polymer particles that have been swollen by the liquid resin or plasticizer and heated to make a firm gel. Col. 4, lines 49-58. The wear layer is subsequently obtained by heating the gelled material to a temperature sufficient to react or polymerize the monomers and to form a homogeneous layer. As exemplified below, Schmidle teaches that polymerization and cross-linking of the reactive polymerizable monomeric materials takes place after the mechanical embossing procedure.

The elevated temperatures which exists therein [describing the blowing or foaming operation] are higher than the temperatures which existed during the preceding heated [mechanical] embossing procedures which in turn, were higher than the temperatures of the gelling operation, **all of which preceding temperatures were insufficient to activate or to decompose the free radical polymerization initiator or catalyst in the resinous wear layer.** (col. 12, lines 40-46)(emphasis added).

Gelling and firming of the applied resinous wear layer is accomplished by heating in an oven atmosphere having an elevated temperature of just under 300°F for a time of about 2 minutes. **The gelled resinous wear layer is then mechanically embossed . . .** The mechanically over-all embossed material is then heated in a fusion oven . . . (col. 15, lines 29-55)(emphasis added).

Contrary to the invention described in Schmidle, the invention recited in claims 21-32 is now directed to a floor covering comprising a chemically embossed portion and a mechanically embossed portion that is cured **prior to mechanically embossing**. As Schmidle clearly does not disclose this element, it can not anticipate the invention recited in claims 21-32.

In addition, Schmidle teaches that, unlike claims 33-38, mechanical embossing is performed prior to chemical embossing. This difference is a result of the general embossing procedure described above, which clearly relies on mechanical embossing of a gelled, pre-cured wear layer.

As shown, each and every requirement of claims 21-26, 28, and 30-38 is not met, since Schmidle does not teach a product on which mechanical embossing is performed on a cured wear layer or after chemical embossing, as claimed. For these reasons, Applicants respectfully request that the rejection under section 102 over Schmidle be withdrawn.

V. Rejection Under 35 U.S.C. §103

The Examiner rejected claims 27 and 29 under 35 U.S.C. §103(a) as being unpatentable over Schmidle in view of U.S. Patent No. 4,863,782 to Wang et al. ("Wang") and U.S. Patent No. 4,264,643 to Granata et al. ("Granata"). Applicants respectfully traverse this rejection.

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Recognizing that Schmidle does not teach or suggest a design layer having an ink composition containing a tolytriazole inhibitor, the Examiner relies on Wang to remedy this deficiency. According to the Examiner, it would have been obvious "to combine Wang's inhibitor with the ink composition in Schmidle so as to modify foaming or blowing in the foamable base." Office Action at p. 4. Applicants disagree.

As show, Schmidle is directed to a fundamentally different process, including a mechanical embossing technique, that necessarily leads to the use of different starting materials than those claimed. For example, Schmidle teaches that as a result of using temperatures sufficient to polymerize or cross-link reactive polymers in the printing layer after the initial mechanical embossing step, certain portions in the wear layer possess an "increased melt viscosity," resulting in a surface which is harder and "which is capable of resisting any softening or melting tendencies during the subsequent heating operations, such as blowing or foaming and fusion procedure." Col. 11, lines 17-28. In other words, the materials used in Schmidle are such that they result in an appropriate surface texture, without being affected by a **subsequent** chemical embossing step *Id.* at lines 24-28 (teaching that the wear layer in Schmidle is, "capable of retaining their flat, dead or dull mat mechanically embossed surface finishes or textures **during subsequent heating at higher temperatures reached during blowing or foaming and fusion.**") (emphasis added).

Wang does not teach or suggest the combination of chemical and mechanical

embossing, and certainly does not teach using an inhibitor that can withstand the environment associated with mechanically embossing a gelled (pre-cured) wear layer, as described in Schmidle. Contrary to the Examiner's assertions, it would not have been obvious to combine Wang's inhibitor with the ink composition in Schmidle so as to modify foaming or blowing in the foamable base. Indeed, the very essence of Schmidle's invention is based on forming a product using a mechanical embossing step that is not only dissimilar to the claimed invention, but is simply not taught in Wang.

Moreover, it is not clear why one would seek to modify foaming or blowing in the foamable base of Schmidle, as asserted by the Examiner. Indeed, Schmidle requires, and thus painstakingly teaches, chemical embossing components that are not affected by the initial mechanical embossing step. Such components do not include tolytriazole. For at least this reason, to say that the use of the inhibitor taught in Wang's invention, which is directed to chemical embossing only, would have been obvious in Schmidle's product is not based on the evidence of record.

At best, the combination of references may have made it obvious to try Wang's inhibitor in the process of Schmidle to obtain the claimed product. In moving from the prior art to the claimed invention, however, one cannot base a determination of obviousness on what the skilled person might try or find obvious *to try*. Rather, the proper test requires determining what the prior art would have led the skilled person *to do*. The Federal Circuit has given some examples of what would constitute an "obvious to try" modification based on the prior art. See *In re O'Farrell*, 853 F.2d 894,

7 U.S.P.Q.2d 1673 (Fed. Cir. 1988). For example, what was 'obvious to try' was to explore a new technology or general approach that seemed to be a promising field of experimentation, where the prior art gave only general guidance as to the particular form of the claimed invention or how to achieve it." *Id.* at 903, 7 U.S.P.Q.2d at 1681 (citations omitted).

In the present case, Wang only provides general guidance to use an inhibitor in a standard chemical embossing procedure. Wang never teaches using an ink composition containing tolytriazole inhibitor in a process that includes chemically embossing after mechanically embossing an uncured wear layer. Only in hindsight could it have been obvious to one with the references before her to have arrived at the conclusion reached by the Examiner. Thus, while the prior art may have made it obvious to try to arrive at the claimed invention, such an obvious to try standard does not support a rejection under section 103. *Ecolochem, Inc. v. Southern Cal. Edison Co.*, 227 F.3d 1361, 1374, 56 USPQ 2d 1065, 1075 (Fed. Cir. 2000).

Assuming, for the sake of argument only, that the references provide a motivation to use Wang's inhibitor in Schmidle's invention, the combined teachings of these references still would not have resulted in the claimed invention. In fact, any modification of Schmidle with Wang to achieve the claimed invention, would result in the destruction of the intended operation described in Schmidle, and thus would form an improper rejection under section 103. It is well-established that it is improper to combine references if their combination would result in the destruction of the intended

operation or if a reference teaches away from the claimed invention. See, *In re Laskowski*, 10 USPQ 2d 1397 (Fed. Cir. 1989).

In the present case, Schmidle is clearly directed to a product produced by a different method, which involves first mechanically embossing a gelled (pre-cured) wear layer. Schmidle systemically describes components that would be useful in a product made by his process, not in a product made by a process that involves mechanically embossing a cured wear layer, or mechanical embossing after chemical embossing. For these reasons, the rejection of claim 27 over Schmidle in view of Wang is improper and should be withdrawn.

Recognizing that Schmidle also does not teach or suggest a top layer being made of an acrylated urethane top coating, as recited in claim 29, the Examiner relies on Granata to remedy this deficiency. According to the Examiner, it would have been obvious to combine Granata's acrylated urethane top coating with the invention of Schmidle "so as to provide a floor covering having superior physical and chemical surface properties and characteristics." Office Action at p. 5. Applicants respectfully disagree and traverse this rejection.

Granata, like Wang, is directed only to a chemically embossed product. Neither Granata nor Wang teach or suggest the combination of chemical and mechanical embossing, and thus do not remedy the deficiencies in Schmidle. Merely identifying all the elements in the prior art is not sufficient to establish a prima facie case of obviousness. See, e.g., *In re Kotzab*, 55 U.S.P.Q.2d 1313 (Fed. Cir. 2000) ("Most if not

all inventions arise from a combination of old elements . . . identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention." (citations omitted)).

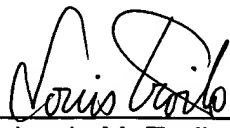
For at least these reasons, Applicants submit that the Examiner has not established a *prima facie* case of obviousness, and respectfully request that this rejection under section 103 be withdrawn.

V. Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration of the application and timely allowance of the pending claims. Please grant any necessary extensions of time required to enter this response and charge any additional required fees to our deposit account no. 06-0916.

Respectfully submitted,

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**Amended Claims With Markings to Show Changes Made
By Amendment of January 2, 2003**

21. (Amended) A floor covering comprising:

a chemically embossed portion; and

a mechanically embossed portion that is cured prior to mechanically embossing,

wherein said chemically embossed portion has at least one chemical emboss depth that is greater than the mechanical emboss depth of any portion of said mechanically embossed portion.

24. (Amended) The floor covering according to claim 23, further comprising a design layer over a portion of said foam layer.

30. (Amended) The floor covering according to claim [21] 23, further comprising a backing layer on said foam and a strengthening layer located between said backing layer and said foam layer.